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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/472,816	12/28/1999	SHIGEKI TAMAI	925--124	9239

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EXAMINER

NGUYEN, DUNG T

ART UNIT PAPER NUMBER

2871

DATE MAILED: 10/03/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/472,816

Applicant(s)

TAMAI, SHIGEKI

Examiner

Dung Nguyen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 03 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 July 2003.
- 2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) 4, 6 and 9 is/are allowed.
- 6) ☐ Claim(s) 1-3, 5, 7, 8, 10-13, 17 and 18 is/are rejected.
- 7) ☐ Claim(s) 14-16 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 6.
- 4) ☐ Interview Summary (PTO-413) Paper No(s) _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION

Response to Amendment

Applicant's amendment dated 07/02/2003 has been received and entered.

Applicant's arguments with respect to claim 1 have been considered but are moot in view of the new ground(s) of rejection as follow:.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-3 and newly added claims 12-13, 17-20 are rejected under 35 U.S.C. 102(b) as being anticipated by Maehara et al., JP 01-251079.

Claims 1-3 are anticipated by Maehara et al. figures 1-3 and accompany text which disclose a liquid crystal display (LCD) panel driver integrated circuit (IC) package comprising:

an LCD panel having a first substrate (lower substrate 12) and a second substrate (upper substrate 13) and driver IC package (3) from the surface of the first substrate (e.g., formed over a step region extending from the first substrate, beyond the second substrate) and not higher than the second substrate;

an flexible insulating base (insulating film 2);

input leads (lead 6 over connecting hole 5a) providing on the insulating base on one side of the LCD panel driver and connected to driver IC;

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output leads (lead 6 on opposite side of input leads) providing on the insulating base on the other side of driver IC and connected to driver IC;

a bending slit (groove 17), wherein the output leads extend into aperture formed by the bending slit (see figure 2);

wherein the insulating can be folded substantially 180° at the bending slit and having an arrangement of the IC as claimed (see figure 2)

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 5 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Maehara et al., JP 01-251079, in view of Applicant's submitted prior art, Nishioka, JP 6-3684.

Regarding claim 5, Maehara et al. discloses the claimed invention as described above except for the input leads having first input leads and second input leads, a connecting slit, a resist-uncoated connection portion.

Regarding claim 7, Maehara et al. fails to disclose the LCD panel driver IC has two identical-signal terminals to which the first and second input leads are connected and such two terminals are connected to each other within the driver IC.

Nishioka does disclose an LCD panel driver IC package (figure 1) comprising:

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an LCD panel driver IC (17) having two identical-signal terminals to which the first and second input leads are connected and such two terminals are connected to each other within the driver IC (figure 2);

first input leads (11) and second input leads (12) extending bilaterally outwardly generally perpendicularly to a direction in which output leads (15) from the driver IC (figure 1)

a connecting slit (slit 13);

a resist-uncoated connection portion (connecting lead 14), wherein the connecting slit and the resist-uncoated connection portion are electrically connected to each other as claimed (figure 4).

It would have been obvious to one skilled in the art at the time of the invention was made to modify the Maehara et al. LCD panel driver IC package having two input leads and a driver IC as shown by Nishioka in order to provide a TCP for connection of liquid crystal driver which enables embodying the resultant liquid crystal module light and small (see purpose).

5. Claims 8 and 10-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Maehara et al., JP 01-251079, in view of Applicant's submitted prior art, Nishioka, JP 6-3684, further in view of Ito et al., US Patent No. 5,748,179.

Although Maehara et al. do not explicitly disclose how to connect the LCD panel driver IC package to an LCD panel (claims 8 and 10) as well as the LCD panel driver IC package are placed within a step region of the LCD panel (claim 11), Ito et al. do disclose an LCD module comprising a first glass substrate (SUB1), a second glass substrate (SUB2) and a liquid crystal layer (LC) therebetween, an LCD panel driver IC package is mounted on the glass substrate SUB1 (figures 14 and 15) to make an array (figure 22) as claimed. Therefore, it would have

been obvious to one skilled in the art at the time of the invention was made to mount the Maehara et al driver IC on the step portion of the glass substrate (e.g., periphery of the transparent substrate) as shown by Ito et al. in order to reduce the resistance between a driving IC and substrate (see col. 2, lines 64-65).

Allowable Subject Matter

6. Claims 4, 6 and 9 are allowed.
7. Claims 14-16 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

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however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dung Nguyen whose telephone number is 703-305-0423. The examiner can normally be reached on Monday-Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert H. Kim can be reached on 703-305-3492. The fax phone numbers for the organization where this application or proceeding is assigned are 703-308-7722 for regular communications and 703-308-7726 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0956.

DN
09/28/2003



Dung Nguyen
Patent Examiner
GAU 2871